

(b) as being anticipated by Furness. Applicant respectfully disagrees. In particular, the Examiner has cited "a second optical emitter (82 of figure 4)... positioned to illuminate the second region of the target area when the scanning mirror is at the first angular extreme." Applicant submits that Furness does not teach the claimed invention. In particular, claim 6 recites that the first emitter or detector is oriented to illuminate or image "a first region ... when the scanning mirror is at the first angular extreme" and to illuminate or image "a second region ... when the scanning mirror is at the second angular extreme." Claim 6 also recites that the second emitter or detector is oriented to illuminate or image "the second region ... when the scanning mirror is at the first angular extreme" and to illuminate or image "a third region ... when the scanning mirror is at the second angular extreme."

As can be understood from this language, the first and second emitter or detector illuminate or detect the second region at opposite angular extremes of the scanning mirror. Moreover, the respective emitters or detectors are aligned to first or third regions, respectively at their respective opposite angular extremes. This is very different from the case where each of the emitters or detectors is oriented to draw essentially parallel lines as the mirror swings from one angular extreme to the other. Instead, the first emitter or detector follows the forward sweep and the second emitter or detector follows the return sweep. Moreover, the region covered on the forward sweep differs from the region covered on the reverse sweep due to the different angular orientations of the first and second emitters or detectors. Even further, the regions covered by the first and second emitters or detectors intersect at the first region, though at opposite angular extremes of the mirror.

Applicant submits that Furness neither teaches nor suggests such a structure. In fact, the text at col.4, lines 60-65 describes a "group" of beams "scanned in parallel." The text in col. 8 clearly reflects that the teachings relate to simultaneously scanning a set of beams in a common direction to draw a set of parallel lines. (see, e.g., col. 8, lines 44-52 describing modulating light in parallel for arrays of emitters.) This understanding is further amplified by Figure 5 that shows a group of LEDs all aligned as a row in an array. This differs from the above-described approach, and teaches away from such an approach.

With respect to claim 10, applicant submits that Furness does not teach that the signal portion includes parts that each represent a segment of a respective line. Instead, the text cited by the Examiner relates to parallel scanning of multiple beams to simultaneously generate lines or regions, rather than segments of lines of the display. This becomes even more apparent in view of the array structure of Figure 5. Thus, the teaching of Furness does not teach segmented display lines scanned by a common mirror.

With respect to claim 14, applicant disagrees that Furness discloses such a structure. In fact, the figure referenced by the Examiner teaches the opposite of the recited language. In the figure referenced by the Examiner, the light source is formed by three light emitters. On the other hand, claim 14 recites that the first and second light sources share a common emitter. The recited structure of claim 14 thus relates to splitting light from a light emitter to provide light along two or more optical paths. On the other hand, Furness shows combining three light emitters along a single optical path. The structure is not teach the recited structure and in fact teaches directly away from such a structure.

Applicant submits that the method of claim 16 is not taught or suggested by the Furness reference. In fact, claim 16 recites that the first light source provides light on a forward path and the second optical source provides light on the reverse scan. Claim 16 further clarifies that the second optical source is "different from the first optical source." Applicant submits that Furness does not teach such a combination of two different light sources where one is active on the forward scan direction and the other is active on the return scan direction. In fact, Furness teaches that the various groups of beams should be scanned in parallel at col. 8.

Claim 17 further adds that a first viewing region is scanned during the forward scanning direction while a second viewing region is scanned during the reverse scan direction. This indicates that the forward and reverse scan operations are not only driven by separate optical sources, but that the sources and scanner are configured to address two regions. Claims 17 and 18 indicate that the first and second viewing regions are substantially non-overlapping and are immediately adjacent. This overall combination of separating the forward and reverse scan directions to illuminate two different regions from two sources is very different from the teaching of Furness.

The Examiner has rejected claims 1-5, 11 and 24-26 under 35 U.S.C. §103 (a). Applicant submits that the Furness reference does not teach nor suggests the recited combination. In particular, the Examiner has referred to the structure of claim line as being "mere rearrangement of elements where the device operation is unchanged." Applicant submits that the operation is different and that the structure is not a mere rearrangement of elements. In particular, applicant notes that the electronic control circuit is operative "to provide the first electrical signal when the mirror swings in the

forward direction and operative to provide the second electrical signal when the mirror sweeps in a second direction."

Once again, applicant notes that the Furness reference does not teach operating two light sources where one light source is operative in a first scan direction when the other is operative in a second scan direction.

With respect to claim 2, the element referenced by the Examiner as the detector 132 of Figure 4 appears inappropriate in that element 132 of Figure 4 appears to be a microscanner (col. 8, line 62). Even assuming the presence of a position detector, claim 2 recites that the position detector produces a sense signal and that the electronic control circuit is "responsive to the sense signal to provide the first electrical signal during forward sweeps and second electrical signal during reverse sweeps." As noted above, this differs from the approach of Furness where the sweeps are provided as a parallel group.

Referring to claim 4, the Examiner has indicated that the light source 82, 84 or 86 is inherently a switch. Applicant submits that the structural recitative of claim 4 eliminates this interpretation. For instance, the remainder of the claim language of claim 4 recites that the switch includes a light input, an electrical input, a first output and a second output. The electrical switch is recited as being responsive to the first electrical signal (referring back to claim 1) to direct light from the optical input to the first output and being responsive to the second electrical signal to direct light from the optical input to the second output. Applicant fails to see how such an optical switch structure is inherent in the light emitters 82, 84, 86. Thus, when combined with the other elements, claim 4 becomes even more distinguishable over the Furness reference.

With respect to claim 24, applicant submits that the method of claim 24 is not taught or suggested by the Furness reference. In particular, claim 24 recites scanning through two different raster patterns with a scanner simultaneously. Additionally, claim 24 recites "blocking the first optical path during reverse sweeps" and "blocking the second optical path during forward sweeps." Moreover, claim 24 recites "transmitting light along the first optical path during forward sweeps" and "transmitting light along the second optical path during reverse sweeps." Applicant submits that Furness does not teach nor suggests an approach in which two separate optical paths are active during opposite portions of their respective scan patterns. Consequently, applicant submits that Furness neither teaches nor suggests the claimed invention.

Claim 25 adds to claim 24 that the light is modulated to produce first portions of lines during the forward sweeps and to produce second portions of lines during reverse sweeps. This differs greatly from the approach taught or suggested by Furness.

With respect to claim 15, the Examiner has indicated that claim 15 contains allowable subject matter. Applicant thanks the Examiner for an indication of allowability. Applicant submits that claim 15 in its dependent form is allowable as it depends from allowable claims 10 and 14.

The Examiner is invited to contact Mr. Casey T. Tegreene at (425) 415-6621 with any issues that may advance prosecution of the application on the merits.

Respectfully submitted,

Hakan Urey



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